CENTERS FOR DISEASE CONTROL

November 23, 1984 / Vol. 33 / No. 46

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

St. Louis Encephalitis — California

In early October 1984, a private physician notified the Long Beach City Health Department that a local private medical laboratory had confirmed the diagnosis of St. Louis encephalitis (SLE) in a city resident with encephalitis. Subsequently, the health department learned that the laboratory also had serologic evidence of recent SLE infection in several other patients with central nervous system infections. As of October 22, SLE had been confirmed in 11 persons—seven from Los Angeles County, three from Orange County, and one from Riverside County. Dates of onset ranged from August 2 to October 5 (Figure 1). There were no deaths. All but two of the patients were 50 years of age or over. Investigations suggest that all patients were infected locally, because none had recently traveled far from home. At least five additional suspected cases are under investigation.

Routine surveillance of arboviral activity in 1984 had been unremarkable until seroconversions to SLE virus were noted in sentinel chickens from Harbor City (Los Angeles County) and Irvine (Orange County) bled on August 30. SLE virus was isolated from pools of *Culex tarsalis* mosquitoes collected from the Harbor City site on September 13 and September 18. More seroconversions were found in bleedings of the Harbor City flock on September 21 and the Irvine flock on October 11. These seroconversions probably reflected viral transmission in the previous 2 weeks. With the onset of cooler weather, by mid-October, mosquito populations had decreased below levels normally associated with risk of transmission to humans (*1*).

Reported by Local mosquito control agencies, Microbiology Reference Laboratory, Long Beach, Long Beach City Health Dept, Arbovirus Research Unit, School of Public Health, University of California, Berkeley, Epidemiology, Laboratory, and Vector Control Svcs, County of Los Angeles Dept of Health Svcs, Orange County Health Care Agency, County of Riverside, California State Dept of Health Svcs; Div of Vector-borne Viral Diseases, Center for Infectious Diseases, CDC.

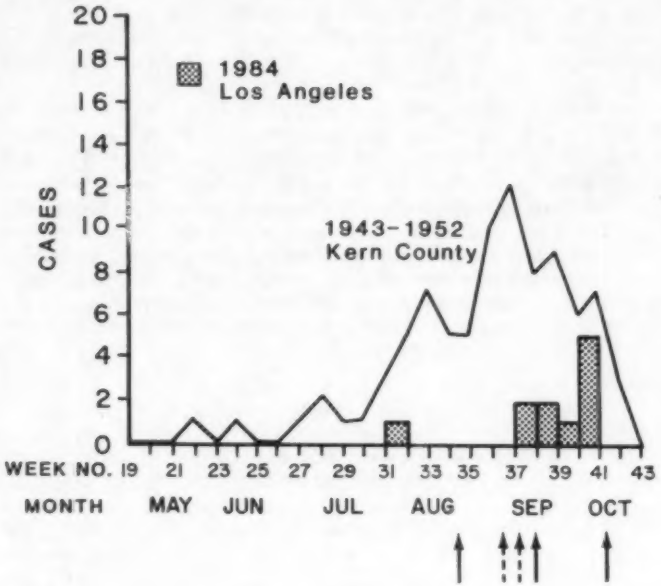
Editorial Note: From 1945 to 1959, major combined outbreaks of western equine encephalitis (WEE) and SLE occurred in California, principally in the Sacramento and San Joaquin Valleys, although 10% of cases were reported from Imperial and Riverside Counties (*2*). In 1952, when the largest arbovirus encephalitis outbreak in the state's history occurred, no human cases occurred in Los Angeles or Orange Counties (*2*). The epidemiology of WEE and SLE in the central valley was characterized by endemic transmission, resulting in increased immunity in the population with increasing length of residence (*3*). Consequently, most clinical infections occurred among children and young adults (*3*). In contrast to this pattern, in east-central and Atlantic states, where SLE transmission occurs intermittently and the population is largely susceptible, major, often urban-centered outbreaks occur, affecting principally the elderly, who are biologically more susceptible (*4*).

St. Louis Encephalitis – Continued

Most of the persons in the current outbreak were over 50 years of age, indicating that larger numbers of milder clinical cases in younger age groups may not have been recognized. The crude attack rate to date for Long Beach, where cases clustered, was 3/100,000 population among persons 60 years of age or older. Although this is a relatively low attack rate, compared with previously described urban SLE outbreaks (*3*), case finding in Los Angeles has been passive thus far. The age distribution in this outbreak suggests that endemic SLE-virus transmission has not previously occurred in the area and that the underlying level of immunity in the population may be low.

In urban SLE outbreaks in the east, *Cx. p. pipiens* and *Cx. p. quinquefasciatus* are the principal vectors. *Cx. tarsalis* is the vector of SLE and WEE in the rural west; however, investigations have indicated a potential role for *Cx. p. quinquefasciatus* in SLE transmission in Imperial County, California (*5*), and, in 1966, in Tucson, Arizona (*6*). In Dallas, Texas, an outbreak in 1966 was attributed to introduction of SLE virus from the rural *Cx. tarsalis* cycle to urban *Cx. p. quinquefasciatus* (*7,8*). The identity of the vector species in this outbreak was not determined. Comprehension of the vector ecology and epidemiology of SLE in Los Angeles will be

FIGURE 1. St. Louis encephalitis (SLE), by date of onset — California, 1943-1952 and 1984



SLE virus isolated from *Cx. tarsalis*, Long Beach.

Seroconversions to SLE virus in sentinel chickens, Long Beach, weeks 34 and 37; Irvine, weeks 34 and 41.

St. Louis Encephalitis — Continued

essential to guide surveillance and control programs to prevent future outbreaks in this populous area, where a substantial proportion of the population appears to be susceptible.

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Current Trends

Influenza Activity — Northern Hemisphere, 1984

Trinidad: Outbreaks of influenza-like illness have occurred in Trinidad since early September. Persons of all ages have been affected, many of whom experienced gastrointestinal symptoms along with fever, cough, coryza, and myalgias. Twenty influenza type B viruses have been recovered from throat swabs collected in September and October from symptomatic children and adults, including one child hospitalized with neurologic symptoms consistent with encephalitis; no type A viruses were recovered. Antigenic analysis of the 20 isolates is currently in progress.

Japan: Influenza-like illness has occurred in northern Japan since mid-October. Influenza type B viruses were recovered from seven children who became ill sporadicallly and from two others who became ill during an outbreak that affected 105 (28%) of 380 children in one school.

Great Britain: Influenza viruses were isolated from sporadic cases occurring in August and September. In Newcastle, type A(H1N1) virus was obtained from an infant with leukemia in remission who became ill August 15. In Edinburgh, type B virus was obtained from a child who developed influenza in September after being hospitalized for several weeks.

United States: Influenza type B virus was isolated from specimens obtained from a 30-year-old woman in Houston, Texas, on October 24. The woman became ill with influenza on October 22 while returning from a trip that included stops in Hong Kong, Singapore, and Thailand.

Influenza – Continued

Influenza A viruses recovered from two patients in Nevada (*1*) were recently submitted to CDC for reference analysis. Both viruses were closely related to A/Philippines/2/82(H3N2), a strain included in the current vaccine.

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Editorial Note: These early reports of influenza in the Northern Hemisphere are consistent with previous reports from the Southern Hemisphere and the tropics (*2*) and indicate that influenza A(H3N2), A(H1N1), and influenza B viruses continue to circulate in the world. Viruses related to the prevalent strains of influenza are included in this year's influenza vaccine, which should continue to be provided to persons who are at high risk or in priority groups (*3*).

References

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TABLE I. Summary—cases of specified notifiable diseases, United States

Disease	46th Week Ending			Cumulative, 46th Week Ending		
	Nov. 17, 1984	Nov. 19, 1983	Median 1979-1983	Nov. 17, 1984	Nov. 19, 1983	Median 1979-1983
Acquired Immunodeficiency Syndrome (AIDS)*	72	55	N	3,759	1,798	N
Aseptic meningitis	190	237	222	7,154	11,345	8,550
Encephalitis: Primary (arthropod-borne & unspec.)	15	39	37	1,030	1,668	1,377
Post-infectious	-	-	2	80	81	81
Gonorrhea: Civilian	16,025	17,601	19,762	738,871	800,226	888,110
Military	285	403	388	18,499	21,595	24,107
Hepatitis: Type A	416	380	540	18,793	18,883	22,334
Type B	498	457	457	22,717	21,127	18,216
Non A, Non B	64	70	N	3,273	3,006	N
Unspecified	97	118	196	4,771	6,438	9,173
Legionellosis	7	24	N	577	668	N
Leprosy	4	5	3	199	215	193
Malaria	19	16	20	879	722	951
Measles: Total**	3	4	34	2,426	1,379	2,829
Indigenous	2	2	N	2,138	1,105	N
Imported	1	2	N	288	274	N
Meningococcal infections: Total	51	45	48	2,372	2,410	2,410
Civilian	51	45	48	2,367	2,395	2,395
Military	-	-	-	5	15	15
Mumps	40	49	80	2,565	2,928	4,774
Pertussis	24	35	29	1,981	2,105	1,515
Rubella (German measles)	11	15	20	696	893	2,166
Syphilis (Primary & Secondary): Civilian	461	594	594	24,436	28,720	27,393
Military	1	5	4	260	350	338
Toxic Shock syndrome	6	7	N	415	374	N
Tuberculosis	326	415	525	18,785	20,632	23,992
Tularemia	4	9	3	272	268	236
Typhoid fever	13	5	6	331	409	464
Typhus fever, tick-borne (RMSF)	8	6	5	836	1,078	1,078
Rabies, animal	88	61	78	4,802	5,432	5,618

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1984		Cum. 1984
Anthrax	1	Plague	31
Botulism: Foodborne	17	Poliomyelitis: Total	3
Infant	83	Paralytic	3
Other	6	Psittacosis (Ind. 1, Ariz. 1, Calif. 1, Hawaii 1)	82
Brucellosis (Va. 2)	110	Rabies, human	2
Cholera	-	Tetanus (Tex. 2, Calif. 1)	57
Congenital rubella syndrome	4	Trichinosis	73
Diphtheria	1	Typhus fever, flea-borne (endemic, murine) (Calif. 1, Hawaii 1)	31
Leptospirosis	27		

*The 1983 reports which appear in this table were collected before AIDS became a notifiable condition.

**One of the 3 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 17, 1984 and November 19, 1983 (46th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1984	1984	Cum. 1984	Cum. 1984	Cum. 1984	Cum. 1983	1984	1984	1984	1984	1984	Cum. 1984
UNITED STATES	3,759	190	1,030	80	738,871	800,226	416	498	64	97	7	199
NEW ENGLAND	129	11	45	2	20,536	20,597	6	45	2	8	-	11
Maine	-	-	-	-	884	1,007	-	-	-	-	-	-
N.H.	2	2	7	-	651	651	2	8	-	-	-	-
Vt.	1	-	5	-	338	393	-	1	-	-	-	-
Mass.	70	4	21	-	8,713	8,876	2	24	1	8	-	6
R.I.	6	1	-	-	1,446	1,136	1	-	-	-	-	4
Conn.	50	4	12	2	8,504	8,534	1	12	1	-	-	1
MID ATLANTIC	1,662	38	119	9	99,950	101,713	28	53	6	3	1	36
Upstate N.Y.	140	7	40	7	16,133	16,861	2	2	-	-	-	3
N.Y. City	1,218	8	11	-	38,632	40,305	6	17	-	1	1	31
N.J.	222	16	27	-	17,846	18,954	13	19	4	2	-	-
Pa.	82	7	41	2	27,339	25,593	7	15	2	-	-	2
E.N. CENTRAL	161	19	292	18	104,553	116,814	17	23	4	4	3	6
Ohio	20	9	94	9	27,942	30,757	7	3	3	1	2	2
Ind.	23	5	77	-	11,332	11,006	4	5	-	2	1	-
Ill.	82	-	27	6	22,832	33,917	-	-	-	-	-	2
Mich.	26	5	60	-	30,729	30,844	6	14	1	1	-	2
Wis.	10	-	34	3	11,718	10,290	-	1	-	-	-	-
W.N. CENTRAL	38	13	91	3	36,883	37,734	4	11	4	1	1	3
Minn.	9	1	41	-	5,513	5,235	-	-	-	-	-	2
Iowa	2	2	29	-	4,028	4,072	2	4	2	1	-	1
Mo.	22	9	11	-	17,651	18,513	1	5	1	-	1	-
N. Dak.	-	-	-	-	351	402	-	-	-	-	-	-
S. Dak.	-	1	2	1	868	933	-	2	1	-	-	-
Nebr.	3	-	1	-	2,752	2,488	1	-	-	-	-	-
Kans.	2	-	7	2	5,720	6,091	-	-	-	-	-	-
S. ATLANTIC	506	42	155	17	182,428	207,042	35	129	12	18	1	10
Del.	5	1	1	-	3,548	3,767	1	1	-	-	1	-
Md.	44	6	28	-	21,393	26,637	2	17	3	2	-	1
D.C.	78	-	-	-	13,394	14,203	-	-	-	-	-	1
Va.	33	9	28	5	17,871	18,948	2	21	1	-	-	4
W. Va.	4	-	36	-	2,397	2,298	2	2	1	-	-	-
N.C.	12	16	31	7	30,435	32,078	-	9	1	2	-	-
S.C.	8	-	4	-	19,281	19,189	2	7	-	3	-	-
Ga.	51	1	2	2	28,722	42,509	5	16	1	1	-	1
Fla.	271	9	25	3	45,387	47,413	21	56	5	10	-	3
E.S. CENTRAL	23	3	51	7	67,312	67,265	5	35	3	1	-	-
Ky.	10	1	13	-	8,008	7,955	2	16	1	1	-	-
Tenn.	6	2	16	1	27,279	27,671	1	8	-	-	-	-
Ala.	5	-	19	5	20,528	20,754	1	8	2	-	-	-
Miss.	2	-	3	1	11,497	10,885	1	3	-	-	-	-
W.S. CENTRAL	270	21	91	4	100,546	111,978	67	35	4	22	1	19
Ark.	1	1	-	2	8,995	8,819	1	2	2	-	-	1
La.	40	3	8	-	22,076	21,422	2	3	-	3	-	1
Okla.	10	5	19	1	11,119	12,931	13	7	2	4	1	-
Tex.	219	12	64	1	58,356	68,806	51	23	-	15	-	17
MOUNTAIN	60	5	31	11	24,512	25,527	64	38	4	6	-	8
Mont.	-	-	-	-	937	1,057	2	-	1	-	-	-
Idaho	-	-	-	-	1,169	1,132	1	1	-	-	-	-
Wyo.	1	-	-	-	658	675	-	-	-	-	-	-
Colo.	30	2	10	-	7,008	7,133	10	6	-	1	-	-
N. Mex.	1	-	-	-	2,975	3,138	2	5	-	1	-	-
Ariz.	15	3	12	3	6,769	7,296	18	15	2	4	-	6
Utah	7	-	9	8	1,170	1,218	12	3	-	-	-	1
Nev.	6	-	-	-	3,826	3,878	19	8	1	-	-	1
PACIFIC	910	38	155	9	102,151	111,556	190	129	25	34	-	106
Wash.	49	2	8	-	7,784	8,778	8	6	2	3	-	3
Oreg.	8	-	-	-	5,912	5,970	43	15	2	-	-	1
Calif.	840	35	144	9	84,216	91,858	139	108	21	31	-	87
Alaska	1	-	-	-	2,512	2,870	-	-	-	-	-	-
Hawaii	12	1	3	-	1,727	2,080	-	-	-	-	-	15
Guam	-	U	-	-	103	118	U	U	U	U	U	-
P.R.	53	1	3	2	2,580	2,552	1	10	-	-	-	5
V.I.	-	U	-	-	406	272	U	U	U	U	U	-
Pac. Trust Terr.	-	U	-	-	-	-	U	U	U	U	U	-

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 17, 1984 and November 19, 1983 (46th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1984	1984	Cum. 1984	1984	Cum. 1984	Cum. 1983	Cum. 1984	1984	Cum. 1984	1984	Cum. 1984	Cum. 1983	1984	Cum. 1984	Cum. 1983
UNITED STATES	879	2	2,138	1	268	1,379	2,372	40	2,565	24	1,981	2,105	11	696	893
NEW ENGLAND	46	-	94	-	12	20	164	4	87	1	59	69	-	20	17
Maine	-	-	-	-	-	-	1	1	27	-	2	5	-	1	-
N.H.	-	-	33	-	3	3	9	2	18	-	9	10	-	1	4
Vt.	6	-	2	-	5	-	29	-	5	-	23	8	-	-	5
Mass.	26	-	49	-	-	8	66	1	18	-	17	36	-	18	6
R.I.	4	-	-	-	-	-	17	-	10	1	4	5	-	-	-
Conn.	10	-	10	-	4	9	42	-	9	-	4	5	-	-	2
MID ATLANTIC	140	2	120	1†	44	118	408	4	297	3	181	352	-	224	144
Upstate N.Y.	27	2	27	1†	14	18	131	2	87	2	103	114	-	99	29
N.Y. City	46	-	89	-	20	70	82	-	27	1	8	56	-	103	86
N.J.	37	-	4	-	3	27	81	2	134	-	12	19	-	18	3
Pa.	30	-	-	-	7	3	114	-	49	-	58	163	-	4	26
E.N. CENTRAL	79	-	617	-	75	704	379	11	978	4	440	473	6	96	129
Ohio	19	-	3	-	6	87	126	8	473	3	75	144	-	2	2
Ind.	4	-	2	-	1	406	47	-	59	-	229	55	-	5	25
Ill.	27	-	179	-	1	203	82	-	177	1	26	163	6	59	56
Mich.	15	-	411	-	54	7	77	3	183	-	30	39	-	22	17
Wis.	14	-	22	-	13	1	47	-	86	-	80	72	-	8	29
W.N. CENTRAL	24	-	47	-	9	8	149	2	106	2	125	131	-	39	42
Minn.	7	-	44	-	3	1	31	-	6	-	16	47	-	4	9
Iowa	2	-	-	-	-	-	22	1	25	1	13	6	-	1	-
Mo.	8	-	3	-	1	1	46	-	10	-	20	23	-	-	-
N. Dak.	1	-	-	-	-	-	2	-	2	-	-	2	-	3	-
S. Dak.	1	-	-	-	-	-	6	-	-	-	9	8	-	-	-
Nebr.	3	-	-	-	-	-	13	-	4	-	13	3	-	-	-
Kans.	2	-	-	-	5	6	29	1	59	1	54	42	-	31	33
S. ATLANTIC	120	-	19	-	33	205	494	2	189	5	157	247	3	26	98
Del.	4	-	-	-	-	-	3	-	2	-	2	5	2	2	-
Md.	29	-	8	-	14	10	38	-	40	-	13	31	-	1	3
D.C.	1	-	-	-	5	-	8	-	-	-	-	-	-	-	-
Va.	31	-	1	-	4	23	60	-	17	-	15	50	-	-	2
W. Va.	1	-	-	-	-	-	5	-	39	-	11	9	-	-	-
N.C.	12	-	-	-	1	1	80	1	20	1	34	28	-	-	10
S.C.	2	-	-	-	-	4	55	-	5	-	1	14	-	-	1
Ga.	14	-	1	-	1	8	93	-	22	-	17	66	-	2	13
Fla.	26	-	9	-	8	159	152	1	44	4	64	44	1	21	67
E.S. CENTRAL	10	-	1	-	5	6	131	-	53	-	14	33	-	20	19
Ky.	1	-	1	-	-	1	49	-	11	-	2	14	-	14	18
Tenn.	2	-	-	-	2	-	33	-	17	-	7	8	-	-	-
Ala.	7	-	-	-	3	5	33	-	6	-	1	5	-	3	1
Miss.	-	-	-	-	-	-	16	-	19	-	4	6	-	3	-
W.S. CENTRAL	76	-	541	-	25	78	257	4	160	2	316	436	-	61	118
Ark.	-	-	8	-	-	13	46	-	8	-	17	24	-	3	-
La.	9	-	8	-	-	29	47	-	-	-	8	11	-	-	10
Okla.	9	-	-	-	6	1	25	N	N	2	238	319	-	-	-
Tex.	58	-	525	-	17	35	139	4	152	-	53	82	-	58	108
MOUNTAIN	27	-	113	-	32	19	80	7	241	3	121	229	-	21	34
Mont.	2	-	-	-	-	4	2	1	9	-	19	1	-	-	3
Idaho	2	-	-	-	23	10	9	-	9	-	7	16	-	1	8
Wyo.	-	-	-	-	-	1	3	-	2	-	6	6	-	2	6
Colo.	7	-	-	-	6	3	28	1	26	-	45	133	-	2	1
N. Mex.	1	-	88	-	-	-	8	N	N	2	11	13	-	1	-
Ariz.	10	-	-	-	1	1	16	5	180	1	24	29	-	4	8
Utah	5	-	25	-	2	-	8	-	11	-	7	31	-	7	7
Nev.	-	-	-	-	-	-	6	-	4	-	2	-	-	4	1
PACIFIC	357	-	586	-	53	221	310	6	454	4	568	§39	2	189	294
Wash.	14	-	138	-	15	28	49	1	50	-	314	16	-	1	9
Oreg.	13	-	-	-	-	10	45	N	N	-	30	9	-	2	14
Calif.	326	-	289	-	34	179	208	5	367	4	148	103	2	180	269
Alaska	-	-	-	-	-	2	7	-	13	-	1	4	-	1	1
Hawaii	4	-	159	-	4	2	1	-	24	-	75	3	-	5	1
Guam	1	U	83	U	2	2	1	U	5	U	-	-	U	2	-
P.R.	4	-	121	-	-	95	4	4	167	-	1	13	3	19	7
V.I.	-	U	-	U	-	5	-	U	5	U	-	-	U	-	2
Pac. Trust Terr.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 17, 1984 and November 19, 1983 (46th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1984	Cum. 1983	1984	Cum. 1984	Cum. 1983	Cum. 1984	Cum. 1984	Cum. 1984	Cum. 1984
UNITED STATES	24,436	28,720	6	18,785	20,632	272	331	836	4,802
NEW ENGLAND	467	611	-	564	630	7	19	5	46
Maine	9	19	-	28	31	-	-	-	12
N.H.	14	21	-	26	32	-	-	-	16
Vt.	1	3	-	8	10	-	-	-	-
Mass.	266	393	-	312	336	7	16	4	10
R.I.	19	19	-	45	56	-	-	-	-
Conn.	158	156	-	145	165	-	3	1	8
MID. ATLANTIC	3,254	3,737	-	3,412	3,656	1	52	27	480
Upstate N.Y.	256	349	-	544	574	-	12	10	105
N.Y. City	1,984	2,173	-	1,385	1,459	1	17	3	-
N.J.	581	731	-	756	773	-	17	3	36
Pa.	433	484	-	727	850	-	6	11	339
E.N. CENTRAL	1,161	1,526	-	2,442	2,792	8	52	59	201
Ohio	212	405	-	438	438	-	7	39	24
Ind.	125	107	-	292	321	-	9	7	21
Ill.	429	713	-	1,012	1,197	8	21	10	72
Mich.	326	221	-	554	690	-	7	3	21
Wis.	69	80	-	146	146	-	8	-	63
W.N. CENTRAL	326	347	-	575	655	81	10	51	688
Minn.	84	131	-	100	137	1	3	1	82
Iowa	11	22	-	58	59	-	-	6	138
Mo.	165	127	-	289	331	42	5	16	61
N. Dak.	9	2	-	11	6	-	-	-	135
S. Dak.	1	11	-	22	37	35	-	5	182
Nebr.	15	15	-	29	21	-	-	5	41
Kans.	41	39	-	66	64	3	2	18	49
S. ATLANTIC	7,060	7,772	2	3,929	4,104	8	39	390	1,434
Del.	19	31	-	50	57	-	-	1	6
Md.	441	472	-	389	328	1	2	29	814
D.C.	292	337	-	156	168	1	6	-	-
Va.	376	522	-	384	444	1	8	51	196
W. Va.	18	25	-	121	124	-	-	7	39
N.C.	763	772	-	591	641	1	1	171	25
S.C.	688	494	-	470	387	-	1	79	58
Ga.	1,059	1,383	-	587	678	4	7	47	173
Fla.	3,404	3,736	2	1,181	1,277	-	14	5	123
E.S. CENTRAL	1,787	1,958	-	1,760	1,862	6	8	89	227
Ky.	90	161	-	411	469	-	2	18	50
Tenn.	460	528	-	510	565	5	2	46	73
Ala.	602	758	-	519	468	-	2	15	104
Miss.	635	511	-	320	360	1	2	10	-
W.S. CENTRAL	6,003	7,396	-	2,221	2,535	117	22	198	941
Ark.	185	172	-	250	307	83	-	30	98
La.	1,073	1,525	-	310	401	7	1	4	55
Okla.	188	184	-	212	226	19	4	118	97
Tex.	4,557	5,515	-	1,449	1,601	8	17	46	691
MOUNTAIN	572	601	1	509	575	33	13	13	270
Mont.	3	7	-	17	42	3	1	8	117
Idaho	22	7	1	27	30	8	-	1	11
Wyo.	4	12	-	4	12	1	-	3	22
Colo.	153	138	-	65	85	6	5	1	42
N. Mex.	79	160	-	95	101	2	3	-	11
Ariz.	210	156	-	232	226	4	3	-	45
Utah	18	21	-	34	37	4	-	-	6
Nev.	83	100	-	35	42	5	1	-	16
PACIFIC	3,806	4,772	U	3,373	3,823	11	116	4	515
Wash.	133	180	-	174	216	2	3	-	3
Oreg.	104	129	-	136	164	2	2	1	1
Calif.	3,492	4,380	3	2,803	3,159	7	102	2	503
Alaska	6	12	-	65	71	-	1	1	8
Hawaii	71	71	-	195	213	-	8	-	-
Guam	-	-	U	5	7	-	-	-	-
P.R.	690	864	-	343	422	-	5	-	58
V.I.	10	17	U	3	2	-	3	-	-
Pac. Trust Terr.	-	-	U	-	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 17, 1984 (46th Week Ending)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	687	475	147	31	16	18	63
Boston, Mass.	176	103	45	10	7	10	26
Bridgeport, Conn.	50	32	16	2	-	-	3
Cambridge, Mass.	35	27	8	-	-	-	4
Fall River, Mass.	29	24	5	-	-	-	1
Hartford, Conn.	58	34	17	3	1	3	-
Lowell, Mass.	28	21	4	2	-	1	3
Lynn, Mass.	21	15	4	1	1	-	-
New Bedford, Mass.	17	13	3	1	-	-	-
New Haven, Conn.	44	28	11	3	2	-	2
Providence, R.I.	59	43	10	4	1	1	4
Somerville, Mass.	8	8	-	-	-	-	-
Springfield, Mass.	58	45	11	-	1	1	7
Waterbury, Conn.	39	32	3	3	1	-	5
Worcester, Mass.	66	50	10	2	2	2	8
MID. ATLANTIC	2,682	1,779	563	198	64	74	123
Albany, N.Y.	55	38	14	1	-	2	-
Allentown, Pa.	18	14	4	-	-	-	-
Buffalo, N.Y.	128	89	29	5	3	2	9
Camden, N.J.	38	21	9	2	2	4	3
Elizabeth, N.J.	38	23	13	2	-	-	3
Erie, Pa.†	38	28	7	-	3	-	5
Jersey City, N.J.	51	31	13	6	1	-	1
N.Y. City, N.Y.	1,463	946	300	129	44	44	64
Newark, N.J.	80	42	24	8	-	3	5
Paterson, N.J.	25	18	4	2	-	1	-
Philadelphia, Pa.†	297	187	72	21	7	10	13
Pittsburgh, Pa.†	55	44	10	1	-	-	1
Reading, Pa.	24	18	2	2	-	1	2
Rochester, N.Y.	133	103	20	7	1	2	8
Schenectady, N.Y.	26	23	2	1	-	-	1
Scranton, Pa.†	36	25	6	2	2	1	1
Syracuse, N.Y.	96	68	20	3	1	4	1
Trenton, N.J.	36	23	9	4	-	-	1
Utica, N.Y.	19	16	2	1	-	-	1
Yonkers, N.Y.	26	22	3	1	-	-	4
E.N. CENTRAL	2,145	1,536	353	126	44	77	82
Akron, Ohio	77	49	21	4	2	1	-
Canton, Ohio	40	31	7	1	1	-	2
Chicago, Ill. §	458	411	5	8	12	13	12
Cincinnati, Ohio	140	104	26	5	1	4	8
Cleveland, Ohio	156	95	42	12	2	5	4
Columbus, Ohio	85	48	19	7	4	7	9
Dayton, Ohio	96	55	30	7	-	4	2
Detroit, Mich.	283	167	49	41	8	18	8
Evansville, Ind.	42	33	8	1	-	-	2
Fort Wayne, Ind.	51	45	3	2	-	1	6
Gary, Ind.	10	5	3	1	1	-	-
Grand Rapids, Mich.	46	32	9	2	-	3	1
Indianapolis, Ind.	170	113	29	15	6	7	2
Madison, Wis.	42	25	6	4	2	5	2
Milwaukee, Wis.	153	111	33	3	3	3	3
Peoria, Ill.	38	29	5	3	-	1	5
Rockford, Ill.	40	30	6	1	-	3	6
South Bend, Ind.	49	38	10	-	1	-	4
Toledo, Ohio	98	69	21	6	1	1	6
Youngstown, Ohio	71	48	21	3	-	1	-
W.N. CENTRAL	710	474	141	37	28	30	38
Des Moines, Iowa	67	46	15	4	2	-	5
Duluth, Minn.	28	16	7	1	-	4	4
Kansas City, Kans.	44	26	10	3	4	1	1
Kansas City, Mo.	119	77	32	5	4	1	12
Lincoln, Nebr.	36	24	9	2	1	-	2
Minneapolis, Minn.	66	47	12	3	2	2	-
Omaha, Nebr.	68	47	11	6	2	2	6
St. Louis, Mo.	148	93	24	10	8	13	2
St. Paul, Minn.	72	54	11	2	2	3	-
Wichita, Kans.	62	44	10	1	3	4	8
S. ATLANTIC	1,128	681	269	73	44	61	45
Atlanta, Ga.	130	79	34	10	2	5	-
Baltimore, Md.	235	147	59	13	10	6	9
Charlotte, N.C.	82	48	23	4	3	4	3
Jacksonville, Fla.	112	73	24	6	3	6	8
Miami, Fla.	124	56	33	18	9	8	4
Norfolk, Va.	46	21	10	5	2	8	4
Richmond, Va.	61	40	8	2	6	5	3
Savannah, Ga.	24	13	10	-	-	1	5
St. Petersburg, Fla.	95	74	18	-	-	3	2
Tampa, Fla.	65	38	13	5	6	3	4
Washington, D.C.	123	71	32	9	2	9	3
Wilmington, Del.	31	21	5	1	1	3	-
E.S. CENTRAL	638	416	145	46	19	12	37
Birmingham, Ala.	83	57	17	4	1	4	1
Chattanooga, Tenn.	61	36	19	6	-	-	6
Knoxville, Tenn.	59	34	17	3	3	2	3
Louisville, Ky.	76	41	23	8	3	1	3
Memphis, Tenn.	157	118	30	7	2	-	13
Mobile, Ala.	44	30	7	3	4	-	3
Montgomery, Ala.	38	24	6	6	-	2	1
Nashville, Tenn.	120	76	26	9	6	3	7
W.S. CENTRAL	1,117	653	265	108	40	47	44
Austin, Tex. §	50	45	-	-	3	-	5
Baton Rouge, La.	34	22	6	3	-	3	-
Corpus Christi, Tex.	51	31	12	2	1	4	3
Dallas, Tex.	171	89	47	16	8	11	9
El Paso, Tex.	43	33	6	3	-	1	1
Fort Worth, Tex.	91	55	18	9	4	5	7
Houston, Tex.	309	163	80	42	14	10	3
Little Rock, Ark.	47	30	10	3	2	2	2
New Orleans, La.	80	44	20	10	5	1	-
San Antonio, Tex.	136	80	36	11	3	6	10
Shreveport, La.	39	23	11	4	-	1	1
Tulsa, Okla.	66	38	19	6	-	3	4
MOUNTAIN	681	433	130	46	22	30	36
Albuquerque, N.Mex.	89	56	14	11	6	2	4
Colo. Springs, Colo.	46	27	11	4	2	1	7
Denver, Colo.	112	72	22	9	4	5	7
Las Vegas, Nev.	73	47	17	6	-	3	3
Ogden, Utah	23	18	3	-	1	1	2
Phoenix, Ariz.	151	101	32	5	4	9	2
Pueblo, Colo.	25	5	1	-	-	-	2
Salt Lake City, Utah	55	33	8	6	4	4	-
Tucson, Ariz.	107	74	22	5	1	5	9
PACIFIC	1,687	1,084	361	129	50	59	71
Berkeley, Calif.	12	7	3	1	-	1	-
Fresno, Calif.	67	45	16	2	1	3	-
Glendale, Calif.	24	20	2	1	1	-	-
Honolulu, Hawaii	54	30	20	1	1	2	3
Long Beach, Calif.	105	67	30	3	2	3	3
Los Angeles, Calif.	395	234	78	54	17	8	8
Oakland, Calif.	84	54	18	4	4	4	2
Pasadena, Calif.	19	14	3	-	-	2	-
Portland, Oreg.	77	52	15	3	1	6	8
Sacramento, Calif.	131	86	32	7	3	3	7
San Diego, Calif.	161	99	35	11	6	10	20
San Francisco, Calif.	160	112	26	12	5	5	4
San Jose, Calif.	164	102	39	13	5	5	10
Seattle, Wash.	131	90	26	11	2	2	3
Spokane, Wash.	64	46	10	3	1	4	2
Tacoma, Wash.	39	26	8	3	1	1	1
TOTAL	11,475††	7,531	2,374	795	327	408	539

* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Reported Cirrhosis Mortality — United States, 1970-1980

According to mortality data from the National Center for Health Statistics (NCHS), from 1970 through 1980,* 19,325,506 people died in the United States. Of these deaths, 347,023 were attributed to liver cirrhosis.† Alcohol was mentioned as a contributing factor§ on an average of 40% of all death certificates that reported liver cirrhosis as the underlying cause of death. However, many experts estimate that alcohol abuse is associated with 90%-95% of cirrhosis deaths, and they use cirrhosis mortality as an indicator of abusive alcohol consumption patterns (*1*).

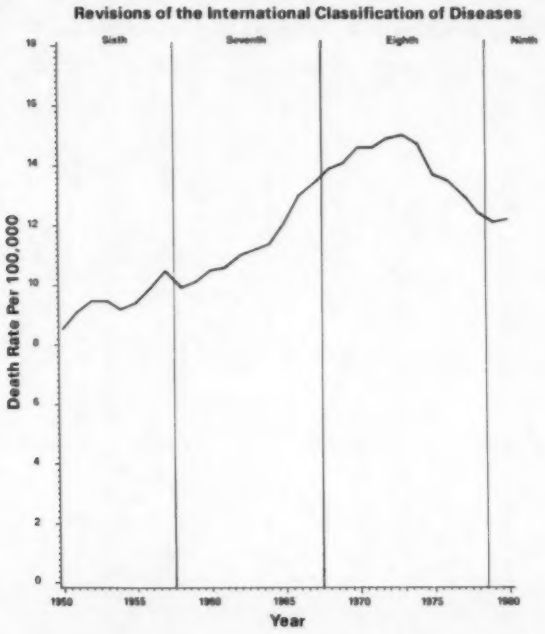
Cirrhosis mortality in the United States increased steadily following the end of Prohibition (1933) until 1973, when the age-adjusted rate of death peaked at 15.0 per 100,000 population (Figure 2). A steady decrease ensued until 1979, when the age-adjusted mortality rate dropped to 12.1/100,000. However, in 1980, the age-adjusted rates increased slightly. These recent patterns in cirrhosis mortality parallel those of the U.S. age-adjusted death rates

*The last year for which complete mortality data and census population figures were available.

†International Classification of Diseases, 8-rubric (ICD-8), and International Classification of Diseases, 9-rubric (ICD-9).

§ICD 8-rubric 571.0; ICD 9-rubric 571.0, 571.1, 571.2, and 571.3.

FIGURE 2. Age-adjusted death rates from liver cirrhosis — United States, 1950-1980



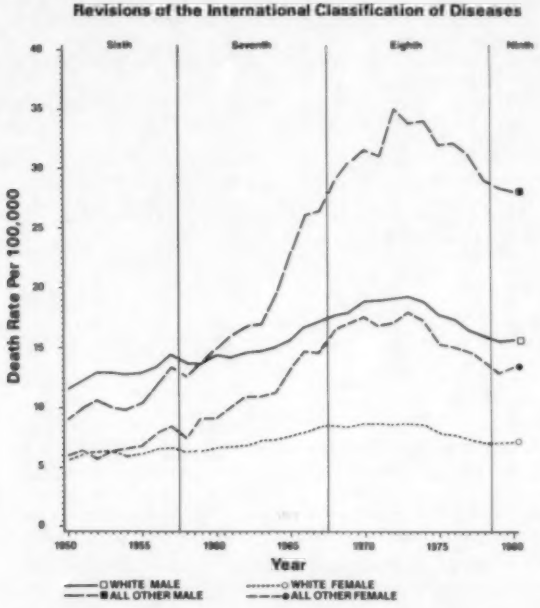
Cirrhosis — Continued

from all causes, which declined by approximately 6.5% from 1973 to 1979 and rose 1.7% between 1979 and 1980.

Since 1950, four International Classification of Diseases' schemes have been used to codify cirrhosis deaths. In each revision, liver cirrhosis deaths were classified either as specifically alcohol-related or not specified. Although both categories contributed in the rising mortality trends during the 1950s and 1960s, it is clear that each component of cirrhosis mortality has not contributed equally proportionately to the overall decline beginning in 1973. The crude mortality rate associated with the category of cirrhosis without mention of alcohol declined 20% between 1973 (9.8/100,000) and 1980 (7.8/100,000). The crude rates for alcohol-related cirrhosis mortality have remained relatively stable during the same period. The rate of alcohol-related cirrhosis in 1980 was 5.7/100,000, a reduction of only 5% since 1973.

Rates of death from cirrhosis have been consistently greater for males than for females, regardless of race, since the advent of death registration in 1900. Between 1950 and 1980, the age-adjusted rates for males have often exceeded those for females by 50%. The most dramatic change in cirrhosis mortality since 1950 occurred among nonwhite males, whose rate increased fourfold between 1950 and 1973 (Figure 3). Age-adjusted death rates for nonwhite females, white males, and white females also rose during this same period but not as sharply. Even though mortality from liver cirrhosis has consistently declined since 1973, rates

FIGURE 3. Age-adjusted death rates from liver cirrhosis, by race and sex — United States, 1950-1980



Cirrhosis – Continued

among nonwhite males remain substantially higher than levels of the three other race-sex groups. Consistent with overall age-adjusted cirrhosis death rates, cirrhosis mortality in each race-sex group suggests a general pattern of stabilization after 1979.

Statistics for the 10% sample of mortality reported by NCHS for 1981-1983, however, appear to indicate a further decline in liver cirrhosis mortality (*2,3*) rather than stabilization. The overall age-adjusted death rates from cirrhosis were 11.4/100,000, 10.4/100,000, and 10.4/100,000 based on the mortality sample for 1981, 1982, and 1983, respectively. This compared with 12.1/100,000 in 1979 and 12.2/100,000 in 1980. This comparison must, however, be viewed with caution. First, estimates from the 10% sample may differ from the final mortality statistics. In addition, unlike those for 1950 through 1980, the population figures used in calculating rates for 1981-1983 are based on postcensal extrapolation rather than intercensal estimation. At this time, it is too soon to determine whether the decline of liver cirrhosis mortality in the current decade will continue.

Reported by BF Grant, PhD, SS Aitken, Alcohol Epidemiologic Data System, CSR, Incorporated, Washington, DC; J Noble, H Malin, National Institute on Alcohol Abuse and Alcoholism, Div of Biometry and Epidemiology; Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, CDC.

Editorial Note: Recent literature has included several reports of the decline in cirrhosis mortality (*4,5*). Since overall cirrhosis mortality is declining, the more rapid decline in cirrhosis deaths without mention of alcohol may reflect a true decrease in cirrhosis deaths from causes other than alcohol. It may also reflect a greater willingness on the part of physicians to designate such deaths as alcohol-related. This would accelerate a decrease in rate from this cause, while decelerating the decline in alcohol-related mortality.

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Notice to Readers

Abstract Deadline for International Conference on Acquired Immunodeficiency Syndrome (AIDS)

December 10, 1984, is the deadline for receipt of abstracts to be considered for presentation at the International Conference on Acquired Immunodeficiency Syndrome (AIDS), which will be held in Atlanta, Georgia, at the Georgia World Congress Center on April 14-17, 1985. This conference will be sponsored by CDC, the Alcohol, Drug Abuse, and Mental

AIDS – Continued

Health Administration, the Food and Drug Administration, the Health Resources and Services Administration, the National Institutes of Health, and the World Health Organization in cooperation with Emory University School of Medicine and Morehouse School of Medicine. Inquiries related to the conference and the submission of abstracts should be directed to:

AIDS Conference Office
Centers for Disease Control
Building 1, Room 2047
Atlanta, Georgia 30333
(404) 321-2290 or FTS 236-2290

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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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☆U.S. Government Printing Office: 1984-746-149/10024 Region IV

DEPARTMENT OF
HEALTH & HUMAN SERVICES
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